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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/720,116

11/25/2003

Mihai Albulet

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10/05/2006

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EXAMINER

CRIBBS, MALCOLM D

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/720,116	<b>Applicant(s)</b> ALBULET, MIHAI	
	<b>Examiner</b> Malcolm D. Cribbs	<b>Art Unit</b> 2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

**Claims 1-23 are presented for examination.**

5 ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15 **Claims 1-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulvey [Publication No. US 2003/0197488] in view of Pheiffer et al [Publication No. US 2003/0063343].

**As per claim 1**, Hulvey teaches the invention comprising:

a batter power source [Fig. 2, 204];

20 a radio transceiver powered by the battery and having components for transmission and receipt of data [Fig. 2, 216];

a memory having instructions stored thereon [Fig. 2, 208]; and

a controller coupled to the transceiver and to the memory and configured **to** execute the instructions so as to [Fig. 2, 202]

25 create, via the transceiver, wireless connections with remote devices in any of a plurality of connection configurations[[0032], lines 6-10],

detect the presence, in a wireless transmission from a remote device, of one or more parameters identifying one of the plurality of configurations, and implement, based on the configuration identified, one of the plurality of power management algorithms [[0068], lines 1-5].

5

Hulvey does not teach a method including a plurality of power management algorithms. Specifically Hulvey teaches a method of setting power levels of a wireless device via signals sent wirelessly, wherein there is a need for conserving power while extending the battery life of the wireless device. However, Hulvey only recites a single  
10 power management algorithm and fails to detail a plurality of algorithms as recited by applicant. A routineer in the art would have been motivated to look for a teaching for the possible method of conserving power of a device by signals sent wirelessly.

Pheiffer teaches another method of conserving power by controlling power based  
15 on signals sent wirelessly. Pheiffer teaches, after receiving parameters from a device, signal power levels [power management algorithms] are determined and stored in memory and later implemented by the device [0205 - 0206].

It would have been obvious to one of ordinary skill in the art to combine the  
20 teachings of Hulvey and Pheiffer, which are analogous art, because they both teach a method of controlling power of wireless devices based on receiving parameters. Pheiffer covers the deficiency of Hulvey by teaching the detail of conserving power that

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would affect the duration of a battery's life with the added benefit of more than one power management algorithm.

**As per Claim 2,** Hulvey discloses a device wherein the controller is configured to

5 detect the presence of one or more parameters by determining if a wireless connection with the remote device has at least one parameter corresponding to an acceptably fast re-connection procedure [[0070]].

**As per Claim 3,** Hulvey discloses a device wherein the controller is configured to

10 implement, upon determining the presence of the at least one parameter, a power management algorithm of the plurality in which the transceiver is deactivated after a first period of device inactivity, and

implement, upon determining the absence of the at least one parameter, a power management algorithm of the plurality in which the transceiver is deactivated after a  
15 second period of device inactivity, the second period being longer than the first period [[0068], Fig. 9, [0087], lines 7-20].

**As per Claim 4,** Hulvey discloses wherein the controller is configured such that

the device is inactive if the device is not being used to generate or transmit data based  
20 on input from a human user of the device [[0058], lines 6-8, [0059]].

**As per Claim 5**, Hulvey discloses a device wherein the controller is further configured detect the presence of one or more parameters at the time of establishing a wireless connection with a remote device (Fig. 11, [0065], lines 19-24, [0066], lines 5-8).

5       **As per Claim 6**, Hulvey discloses a device wherein the plurality of power management algorithms comprises three or more power management algorithms [[0065], lines 1-12, 19-23, [0068], lines 1-5].

10       **As per Claim 7**, Hulvey discloses a device wherein the device is a computer input device [[0010]].

**As per Claim 8**, Hulvey discloses a device wherein the device is a computer mouse [[0032]].

15       **As per Claim 9**, Hulvey discloses a device wherein the device is a computer keyboard [[0033]].

20       **As per Claim 10**, Hulvey discloses a method for automatically selecting a power management algorithm in a battery-powered wireless device capable of creating wireless connections with a remote device in any of a plurality of connection configurations, comprising:

          establishing a wireless connection with a remote device [[0065], lines 1-5];

determining wireless communication features supported by the remote device  
[[0065], lines 1-12, 19-23]; and

implementing a first power management algorithm if the remote device supports  
a first communication feature [[0087], lines 7-20].

5

Hulvey does not teach a method of implementing a second power management  
algorithm if the device does not support the first. Specifically Hulvey teaches a method  
of setting power levels of a wireless device via signals sent wirelessly, wherein there is  
a need for conserving power while extending the battery life of the wireless device.

10 However, Hulvey only recites a single power management algorithm and fails to detail a  
method of implementing a plurality of algorithms as recited by applicant. A routineer in  
the art would have been motivated to look for a teaching for the possible method of  
conserving power of a device by signals sent wirelessly.

15 Pheiffer teaches another method of conserving power by controlling power based  
on signals sent wirelessly. Pheiffer teaches, after receiving parameters from a device,  
signal power levels [power management algorithms] are determined and stored in  
memory and later implemented by the device [0205 - 0206]. Thereafter, it is determined  
whether the device supports the levels [determined whether the levels are to high or to  
20 low to be adequately processed] and implements a second level [[0217] – [0220]; Fig.  
11A and B]

It would have been obvious to one of ordinary skill in the art to combine the teachings of Hulvey and Pheiffer, which are analogous art, because they both teach a method of controlling power of wireless devices based on receiving parameters.

Pheiffer covers the deficiency of Hulvey by teaching the detail of conserving power that would affect the duration of a battery's life with the added benefit of implementing more than one power management algorithm if the first is not supported by the device.

**As per Claim 11**, Hulvey discloses a method wherein the first communication feature comprises support for an acceptably fast re-connection procedure [[0070]].

**As per Claim 12**, Hulvey discloses a method wherein:

the first power management algorithm comprises deactivating a transceiver after a first period of wireless device inactivity, and

the second power management algorithm comprises deactivating the transceiver after a second period of wireless device inactivity, the second period being longer than the first period [[0068], Figure 9, [0087], lines 7-20].

**As per Claim 13**, Hulvey discloses a method wherein the wireless device is inactive if the wireless device is not being used to generate or transmit data based on input from a human user [[0058], lines 6-8, [0059]].

**As per Claim 14**, Hulvey discloses a method of claim 10, further comprising:



implementing a third power management algorithm if the remote device does not support the first feature but supports a second feature [Fig. 11, [0065], lines 19-24, [0066], lines 5-8].

5       **As per claim 15**, Hulvey discloses a method Wherein said determining wireless communication features comprises determining wireless communication features at the time of establishing a wireless connection with a remote device [[0065], lines 1-12, 19-23, [0068], lines 1-5].

10       **As per Claim 16**, it is directed to a machine-readable medium to implement the method of steps as set forth in claim 10. Therefore, it is rejected on the same basis as set forth hereinabove.

15       **As per Claim 17**, Hulvey discloses a machine-readable medium wherein the first communication feature comprises support for all acceptably fast re-connection procedure.

20       **As per Claim 18**, Hulvey discloses a machine-readable medium wherein:  
the first power management algorithm comprises deactivating a transceiver  
after a first period of wireless device inactivity, and

the second power management algorithm comprises deactivating the transceiver after a second period of wireless device inactivity, the second period being longer than the first period [[0068], Fig. 9, [0087], lines 7-20].

5           **As per Claim 19**, Hulvey discloses a machine-readable medium wherein the wireless device is inactive if the wireless device is not being used to generate or transmit data based on input from a human user [[0058], lines 6-8, [0059]].

10           **As per Claim 20**, Hulvey discloses a machine-readable medium comprising further sequences of instructions that cause the processor to perform steps comprising:  
              implementing a third power management algorithm if the remote device does not support the first feature but supports a second feature [Figure 11, [0065], lines 19-24, [0066], lines 5-8].

15           **As per Claim 21**, Hulvey discloses a machine-readable medium wherein said determining wireless communication features comprises determining wireless communication features at the time of establishing a wireless communication with a remote device [[0065], lines 1-12, 19-23, [0068], lines 1-5].

20           **As per claims 22**, it is directed to a computer input device to implement the method of steps as set forth in claim 10. Therefore, it is rejected on the same basis as set forth hereinabove.

**As per claim 23**, Hulvey discloses a method wherein the first communication feature comprises establishing a re-connection in a reduced amount of time [[0070]].

5

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malcolm D. Cribbs whose telephone number is 571-272-5689. The examiner can normally be reached on M-F 8AM-430PM.

10 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.  
15 Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information  
20 system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Malcolm D Cribbs  
Examiner  
Art Unit 2115

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September 28, 2006

A handwritten signature in black ink, appearing to read "M. J. ...", located in the lower right quadrant of the page.